NATIONAL INSTITUTES OF HEALTH
CLINICAL CENTER
NURSING AND PATIENT CARE SERVICES

Standard of Practice: Care of the Patient with Drains

Essential Information: Examples of drains include but are not limited to Jackson-Pratt, Hemovac, Penrose, and Bili (T-tube).

I. ASSESSMENT

A. Assess:
1. Dressing, drain exit site and equipment at a frequency based on patient condition
2. Dressing for drainage after insertion at least every 4 hours for the first 24 hours then every 8 hours.
3. Exit site at least every 4 hours for the first 24 hours then every 8 hours.
4. Penrose drains at least every 4 hours unless no drainage is noted for 24 hours. Then assess every 8 hours.
5. Drain insertion site and surrounding skin for:
   a. skin integrity or irritation
   b. leakage
   c. infection
   d. after drain removal at 4, 8, and 24 hours
6. Collection reservoir (bulb/bellows) drainage bag, and tube every 4 hours for the first 24 hours then every 8 hours for:
   a. drainage amount and character
   b. absence of kinks
   c. connection tightness
   d. patency (or free of clots)
   e. Penrose drain position and length of tube at exit site.

II. INTERVENTIONS

A. Dressing and Site Care:
1. Original OR dressing is re-enforced until the surgeon/physician removes the dressing or instructs the nurses to change the dressing.
2. The physician changes the initial dressing within 48 hours. Contact the physician if dressing not changed within 48hours or for complications associated with exit site.
3. Notify physician for complications such as:
   a. Excessive drainage around exit site
   b. Increased or absence of drainage
   c. Increased redness or pain at exit site
   d. Fever
   e. Tube dislodgement

4. Change dressing QD for gauze dressings and q 72 hours for transparent dressings.
5. Change dressings more frequently if wet or otherwise compromised to reduce maceration to surrounding skin.
6. Cleanse insertion site with Sterile Normal Saline soaked cotton tipped swabs or gauze.
7. Use 4x4 drain sponges and slip sponge around drain exit site. Secure with minimal amount of tape. Use skin prep to reduce irritation/trauma with tape removal and protect against skin maceration (Lippincott reference).
8. Penrose drains can be managed using the simple pouching technique of a urostomy appliance or wound manager bag (Krasner reference).
9. Verify with physician showering restrictions.
10. Secure drainage bag or tubing to patient's body or clothing, (not to the bed) to prevent accidental tube dislodgement.

B. For drains with connectors and reservoirs:
1. Verify that all connections are tightened.
2. Empty reservoirs every 8 hours or when 2/3 full.
3. Re-establish suction to reservoir according to physician orders and product information.
   a. For Jackson-Pratt, Davol, and Hemovac compress bulb or bellows and close cap to re-establish suction.
   b. Initiate suction as ordered
   c. For gravity or straight drainage orders, do not compress the bulb or bellows but close the cap.
4. Verify that system is patent and draining. Milk but do not strip tubing as needed to establish flow according to prescriber orders.

C. Irrigate drains per prescriber orders.

D. Teaching:
1. Signs and symptoms of infection and/or bleeding
2. Daily tube site care
3. Reservoir management: emptying, measurement of output, and recording information
4. Irrigation procedures: irrigation solution type, volume, frequency, & technique.

III. **DOCUMENTATION**

A. Document in approved NIH Medical Record or electronic record:
1. Document assessments and interventions:
   a. Drainage amount, color, and consistency from each separate drain.
   b. Record output on approved flowsheet
   c. Type of drain and location of site
   d. Exit site skin assessment
   e. Type of dressing applied
   f. Patient /family teaching

B. Record separate output totals for each drain.

C. On dressing, record date/time of dressing change and initials.

IV. **REFERENCES**

A. Ignatavicus D. and Bayne M., 1991 Medical Surgical Nursing, A Nursing Process Approach: Philadelphia, W. B. Saunders, pp. 478-480 & 1452-1455.
B. Perry A., Potter P. 1990, Clinical Nursing Skills and Techniques. St. Louis: C.V. Mosby Co., pp. 921-925.
C. Suddarth D. 1995. The Lippincott Manual of Nursing Practice. Philadelphia: J.B. Lippincott Co., pp. 70-73.
D. Patient Teaching Sheet Home Care of Your Drain, Dept. of Nursing , CC, NIH.
E. Nettina, Sandra M. The Lippincott Manual of Nursing Practice. Procedure Guideline 7-2: Using Portable Wound Suction. Philadelphia: JB Lippincott Co. CD-ROM. 2001.
F. Krasner, DL, Rodeheaver, GT, and Sibbald, RG. (eds). Chronic Wound Care: A Clinical Source Book for Healthcare Professionals, Third Edition. Wayne, PA, HMP Communications, 2001, pp. 726-727.

Approved:

_____

Clare E. Hastings, RN, Ph.D.
Chief, Nursing and Patient Care Services
Formulated: 10/96
Implemented: 12/96
Reviewed: 10/00
Revised: 07/03

G:\SOP\ DRAINS.DOC
CIS:/10/14/00